



Your 2014 Water Quality Report Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2013 water quality testing** and has been prepared in compliance with regulations called for in the 1996

reauthorization of the Safe Drinking Water Act. The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program.

USEPA and the California Department of Public Health (CDPH) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, the USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water

that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The Trabuco Canyon Water District (TCWD) has many procedures in place to safeguard its water supply. The water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks.

Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.



## The Quality of Your Water is Our Primary Concern

## Sources of Supply

Trabuco Canyon Water District (TCWD) has a variety of water supply sources, including imported wholesale water supplies and local ground water. Imported wholesale water is supplied primarily from TCWD's Dimension Water Treatment Plant which treats imported surface water from the Colorado River. In addition, TCWD also receives imported treated surface water from the Metropolitan Water District of Southern California (MWDSC). Imported treated water primarily consists of blended water from the State Water Project and the Colorado River Aqueduct that

primarily consists of blended water from the Sta Water Project and the Colorado River Aqueduct that is treated by MWDSC and conveyed to TCWD. In some portions of TCWD, your drinking water is a blend of treated local groundwater and treated imported water. Treated local groundwater comes from TCWD's Trabuco Creek Wells Facility.

## Basic Information About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production or mining activities.

In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline: (800) 426-4791.

## Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20<sup>th</sup> century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously

ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average.

Effective in January 2002, the Stage 1
Disinfectants / Disinfection Byproducts Rule
lowered the total THM maximum annual average
level to 80 parts per billion and added HAAs to the
list of regulated chemicals in drinking water. Your
drinking water complies with the Stage 1 Disinfectants /
Disinfection Byproducts Rule.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by CDPH. Full Stage 2 compliance began in 2012.

## Immuno-Compromised People

State Water Project Aqueduct

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

## Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested their source water and treated surface water for Cryptosporidium in 2013 but did not detect it. If it ever is detected, Cryptosporidium is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water hotline at (800) 426-4791 between 10 a.m. and 4 p.m. Eastern Time (7 a.m. to 1 p.m. in California).

### Questions about your water? Contact us for answers.

For information about this report, or your water quality in general, please contact Hector Ruiz at (949) 858-0277. The TCWD Board of Directors meets the third Wednesday of each month at 7:00 p.m. at the TCWD's Administration Building located at 32003 Dove Canyon Drive, Trabuco Canyon, California 92679. The public is encouraged to attend.

For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791.

TCWD encourages its customers to visit our website at www.tcwd.ca.gov.

# Important Information the EPA Would Like You to Know

## **Drinking Water Fluoridation**

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWDSC joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. In line with recommendations from the CDPH, as well as the U.S. Centers for Disease Control and Prevention, MWDSC adjusted the natural fluoride level in imported treated water from the Colorado River and State Project water to the optimal range for dental health of 0.7 to 1.3 parts per million. Our local water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

There are many places to go for additional information about the fluoridation of drinking water.

### **U.S. Centers for Disease Control and Prevention**

www.cdc.gov/fluoridation/

#### **California Department of Public Health**

www.cdph.ca.gov/certlic/drinkingwater/ Pages/Fluoridation.aspx

#### **American Water Works Association**

www.awwa.org

For more information about MWDSC's program, please contact Edgar G. Dymally at (213) 217-5709, or edymally@mwdh2o.com.



#### What are Water Quality Standards?

Drinking water standards established by USEPA and CDPH set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants
- Secondary MCLs: Set to protect the odor, taste, and appearance of drinking water.
- Primary Drinking Water Standard: MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- Regulatory Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

#### **How are Contaminants Measured?**

- parts per million (ppm) or milligrams per liter (mg/L)
- parts per billion (ppb) or micrograms per liter ( $\mu g/L$ )
- parts per trillion (ppt) or nanograms per liter (ng/L)

#### What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and CDPH have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA.
- Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health.
   PHGs are set by the California Environmental Protection Agency.

### Contaminants Not Detected

TCWD safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks. The contaminants listed below, specifically MTBE, were NOT DETECTED in TCWD'S water during the most recent sampling dates.

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,3-Trichlorobenzene
1,2,3-Trichloroptopane
1,2,4-Trinchlorobenzene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,3-Dichloroptopane
1,3-Dichloroptopane
1,3-Dichloroptopane
1,3-Dichloroptopane

1,3-Dichlorobenzene 1.3-Dichloropropane Carbon Tetrachloride ,4-Dichlorobenzene Chlorobenzene . Phenylpropane Chloroethane 2,2-Dichloropropane Chloromethane 2-Chlorotoluene cis-1,2-Dichloroethene 4-Chlorotoluene cis-1,3-Dichloropropene Atrazine Cyanide Benzene Diazinon Beryllium Dibromomethan Bromobenzene Dimethoate Bromochloromethane Dichlorofluoromethane

Ethyl benzene

Bromomethane

Fecal Coliform & E.Coli Isopropylbenzene Metcury Methyl+-butyl ether Methylene chloride n-Butylbenzene Naphthalene Nickel Nitogen Phosphorous Pesticides Simazine Styrene

Thallium Thiobencarb Toulene Total Coliform Bacteria trans-1,2-Dichloroethene trans-1,3-Dichloropropene Trichloroethene Trichlorottifluoroethane Trichlorottifluoroethane Vinyl Chloride Xylenes

| 2013 Trabuco Canyon Water District Dimension Water Treatment Plant |               |                  |                   |                         |                   |                              |   |
|--|---------------|------------------|-------------------|-------------------------|-------------------|------------------------------|---|
| Constituent  | MCL           | PHG<br>(MCLG)    | Average<br>Amount |                         | MCL<br>Violation? | Most Recent<br>Sampling Date | Typical Source of Constituent               |
| Radiologicals  |               |                  |                   |                         |                   |                              |   |
| Alpha Radiation (pCi/L)  | 15            | (0)              | 3.5               | 3.5                     | No                | 2011                         | Erosion of Natural Deposits                 |
| Beta Radiation (pCi/L)   | 50            | (0)              | 6.9               | 2.8 - 11                | No                | 2006                         | Decay of Man-Made Deposits                  |
| Uranium (pCi/L)  | 20            | 0.43             | 3.3               | 3.3                     | No                | 2011                         | Erosion of Natural Deposits                 |
| Inorganic Constituents   |               |                  |                   |                         |                   |                              |   |
| Aluminum (ppm)   | 1             | 0.6              | 0.16              | 0.09-0.25               | No                | 2013                         | Treatment Process Residue, Natural Deposits |
| Barium (ppm)   | 1             | 2                | 0.11              | 0.11                    | No                | 2013                         | Erosion of Natural Deposits                 |
| Fluoride (ppm) naturally-occurring                                 | 1 2           | 1                | 0.29              | 0.29                    | No                | 2013                         | Erosion of Natural Deposits                 |
| Secondary Standards*   |               |                  |                   |                         |                   |                              |   |
| Aluminum (ppb)   | 200*          | 600              | 160               | 88-251                  | No                | 2013                         | Treatment Process Residue, Natural Deposits |
| Chloride (ppm)   | 500*          | n/a              | 88                | 88                      | No                | 2013                         | Leaching from Natural Deposits              |
| Specific Conductance (µmho/cm)                                     | 1,600*        | n/a              | 896               | 896                     | No                | 2013                         | Ions in Water                               |
| Sulfate (ppm)  | 500*          | n/a              | 225               | 225                     | No                | 2013                         | Runoff or Leaching from Natural Deposits    |
| Total Dissolved Solids (ppm)                                       | 1,000*        | n/a              | 578               | 578                     | No                | 2013                         | Runoff or Leaching from Natural Deposits    |
| <b>Unregulated Constituents</b>                                    | Requiring N   | lonitorin        | ıg                |                         |                   |                              |   |
| Calcium (ppm)  | Not Regulated | n/a              | 63                | 63                      | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| Magnesium (ppm)  | Not Regulated | n/a              | 25                | 25                      | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| pH (pH units)  | Not Regulated | n/a              | 7.4               | 7.4                     | n/a               | 2013                         | Hydrogen Ion Concentration                  |
| Potassium (ppm)  | Not Regulated | n/a              | 4.8               | 4.8                     | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| Sodium (ppm)   | Not Regulated |                  | 85                | 85                      | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| Total Alkalinity (ppm as CaCO <sub>3</sub> )                       | Not Regulated |                  | 100               | 100                     | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| Total Hardness (ppm as CaCO <sub>3</sub> )                         | Not Regulated |                  | 288               | 288                     | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
| Total Hardness (grains/gal)  | Not Regulated | n/a              | 17                | 17                      | n/a               | 2013                         | Runoff or Leaching from Natural Deposits    |
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ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = pico curies per liter; NTU = nephelometric turbidity units; ND = not detected; NR = not required to be tested; pmho/cm = micromhos per centimeter; n/a = not applicable; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; TT = treatment technique; NL = Notification Level; <= average is less than the reporting limit \*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

| Turbidity – combined filter effluent       | Treatment<br>Technique | Turbidity<br>Measurements | TT<br>Violation? | Most Recent<br>Sampling Date | Typical Source of Constituent |
|--|------------------------|---------------------------|------------------|------------------------------|-------------------------------|
| 1) Highest single turbidity measurement    | 1 NTU                  | 0.19                      | No               | 2013                         | Soil Run-off                  |
| 2) Percentage of samples less than 0.2 NTL | 95%                    | 100%                      | No               | 2013                         | Soil Run-off                  |

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.

NTU = nephelometric turbidity units
Low turbidity in Trabuco Carnyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).
A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

| 2013 Trabuco Canyon Water District Creek Wells Facility |               |               |                   |           |                |                              |                               |
|---|---------------|---------------|-------------------|-----------|----------------|------------------------------|-------------------------------|
| Constituent   | MCL           | PHG<br>(MCLG) | Average<br>Amount |           | MCL Violation? | Most Recent<br>Sampling Date | Typical Source of Constituent |
| Inorganic Constituents                                  |               |               |                   |           |                |                              |                               |
| Fluoride (ppm)  | 2             | 1             | 0.16              | 0.16      | No             | 2013                         | Erosion of Natural Deposits   |
| Nitrate (ppm as NO <sub>3</sub> )                       | 45            | 45            | 0.80              | ND - 1.7  | No             | 2013                         | Fertilizers, Septic Tanks     |
| Nitrate+Nitrite (ppm as N)                              | 10            | 10            | 0.20              | ND - 0.40 | No             | 2013                         | Fertilizers, Septic Tanks     |
| Secondary Standards*                                    |               |               |                   |           |                |                              |                               |
| Chloride (ppm)  | 500*          | n/a           | 21                | 21        | No             | 2013                         | Erosion of Natural Deposits   |
| Specific Conductance (µmho/cm)                          | 1,600*        | n/a           | 660               | 660       | No             | 2013                         | Ions in Water                 |
| Sulfate (ppm)   | 500*          | n/a           | 154               | 154       | No             | 2013                         | Erosion of Natural Deposits   |
| Total Dissolved Solids (ppm)                            | 1,000*        | n/a           | 440               | 440       | No             | 2013                         | Erosion of Natural Deposits   |
| <b>Unregulated Constituents</b>                         | Requiring N   | lonitorin     | g                 |           |                |                              |                               |
| Bicarbonate (ppm)                                       | Not Regulated | l n/a         | 165               | 165       | n/a            | 2013                         | Erosion of Natural Deposits   |
| Calcium (ppm)   | Not Regulated | n/a           | 80                | 80        | n/a            | 2013                         | Erosion of Natural Deposits   |
| Magnesium (ppm)   | Not Regulated | n/a           | 20                | 20        | n/a            | 2013                         | Erosion of Natural Deposits   |
| pH (pH units)   | Not Regulated | n/a           | 7.0               | 7.0       | n/a            | 2013                         | Hydrogen Ion Concentrate      |
| Potassium (ppm)   | Not Regulated | n/a           | 1.7               | 1.7       | n/a            | 2013                         | Erosion of Natural Deposits   |
| Sodium (ppm)  | Not Regulated | n/a           | 26                | 26        | n/a            | 2013                         | Erosion of Natural Deposits   |
| Total Alkalinity (ppm as CaCO <sub>3</sub> )            | Not Regulated | n/a           | 165               | 165       | n/a            | 2013                         | Erosion of Natural Deposits   |
| Total Hardness (ppm as CaCO <sub>3</sub> )              | Not Regulated | n/a           | 316               | 316       | n/a            | 2013                         | Erosion of Natural Deposits   |
| Total Hardness (grains per gallon)                      | Not Regulated | n/a           | 18                | 18        | n/a            | 2013                         | Erosion of Natural Deposits   |

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = pico curies per liter; NTU = nephelometric turbidity units; ND = not detected; NR = not required to be tested; µmho/cm = micromhos per centimeter; n/a = not applicable; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; TT = treatment technique; NL = Notification Level; <= average is less than the reporting limit \*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

| Turbidity – combined filter effluent       | Treatment<br>Technique | Turbidity<br>Measurements | TT<br>Violation? | Most Recent<br>Sampling Date | Typical Source of Constituent |
|--|------------------------|---------------------------|------------------|------------------------------|-------------------------------|
| 1) Highest single turbidity measurement    | 5 NTU                  | 0.04                      | No               | 2013                         | Soil Run-off                  |
| 2) Percentage of samples less than 0.2 NTU | 95%                    | 100%                      | No               | 2013                         | Soil Run-off                  |

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.

NTU = nephelometric turbidity units Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. It is called a "treatment technique" (TT).

A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

#### 2013 Metropolitan Water District of Southern California Treated Surface Water PHG, or MCL Average Range of Constituent MCL Violation? Amount **Typical Source of Constituent** Radiologicals - Tested in 2011 Alpha Radiation (pCi/L) 15 (0)ND - 3No Erosion of Natural Deposits 3 Beta Radiation (pCi/L) 50 (0) ND ND - 4 No Decay of Man-made or Natural Deposits 20 Nο **Erosion of Natural Deposits** Uranium (pCi/L) 0.43 2 2 Inorganic Constituents – Tested in 2013 Aluminum (ppm) 0.6 0.16 0.1 - 0.23Treatment Process Residue Natural Denosits Nο Arsenic (ppb) 10 0.004 No Erosion of Natural Deposits 7 Nitrate (ppm as NO<sub>3</sub>) 45 45 1.8 1.8 No Agriculture Runoff and Sewage Control Range 0.7 - 1.3 ppm 0.8 0.7 - 1No Water Additive for Dental Health Fluoride (ppm) treatment-related Optimal Level 0.8 ppm Secondary Standards\* - Tested in 2013 100 - 230 Aluminum (ppb) 200 600 160 No Treatment Process Residue, Natural Deposits Chloride (ppm) 500 n/a 86 84 - 87No Runoff or Leaching from Natural Deposits 15' No Naturally-occurring Organic Materials Color (color units) n/a Odor (threshold odor number) 3\* No n/a Naturally-occurring Organic Materials 1 600 870 - 900 Specific Conductance (µmho/cm) n/a 290 Nο Ions in Water 500\* 190 180 - 200No Runoff or Leaching from Natural Deposits Sulfate (ppm) n/a Total Dissolved Solids (ppm) 1.000 n/a 540 520 - 560 Nο Runoff or Leaching from Natural Deposits **Unregulated Constituents - Tested in 2013** Alkalinity, total as CaCO<sub>3</sub> (ppm) Not Regulated n/a 110 93 - 120n/a Runoff or Leaching from Natural Deposits 0.14 0.14 Boron (ppm) NL = 1Runoff or Leaching from Natural Deposits n/a n/a Calcium (ppm) Not Regulated n/a 60 59 - 61 n/a Runoff or Leaching from Natural Deposits Hardness, total as CaCO<sub>3</sub> (ppm) 240 – 250 Not Regulated n/a 250 n/a Runoff or Leaching from Natural Deposits Hardness, total (grains/gallon) 15 14 – 15 Not Regulated Runoff or Leaching from Natural Deposits n/a n/a Runoff or Leaching from Natural Deposits Magnesium (ppm) Not Regulated n/a 22 22 - 23n/a pH (pH units) Not Regulated 8.1 8.1 Hydrogen Ion Concentration n/a n/a Potassium (ppm) Not Regulated n/a 4 2 4 – 4.4 n/a Runoff or Leaching from Natural Deposits Runoff or Leaching from Natural Deposits Sodium (ppm) 82 – 87 Not Regulated 84 n/a n/a

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; ND = not detected; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; NL = Notification Level; n/a = not applicable; TT = treatment technique \* Contaminant is regulated by a secondary standard.

n/a

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms

Total Organic Carbon (ppm)

| Turbidity – combined filter effluent<br>Metropolitan Water District Diemer Filtration Plant | Treatment<br>Technique | Turbidity<br>Measurements | TT<br>Violation? | Typical Source of Constituent |
|---|------------------------|---------------------------|------------------|-------------------------------|
| 1) Highest single turbidity measurement   | 0.3 NTU                | 0.06                      | No               | Soil Runoff                   |
| 2) Percentage of samples less than 0.3 NTII   | 95%                    | 100%                      | No               | Soil Runoff                   |

2.5

2.2 - 2.7

n/a

Various Natural and Man-made Sources

NTU = nephelometric turbidity units

Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is scalled a "treatment technique" (TT).

A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

#### 2013 Trabuco Canyon Water District Distribution System Water Quality Average Disinfection MCL MCL Range of (MRDL/MRDLG) Violation? Typical Source of Constituent **Byproducts** Amount Detections Total Trihalomethanes (ppb) 53 24 - 103 Byproducts of chlorine disinfection 80 Νo Haloacetic Acids (ppb) 12 5 – 23 Byproducts of chlorine disinfection 60 No Chlorine Residual (ppm) (4 / 4) 1.4 0.3 - 2.5No Disinfectant added for treatment **Aesthetic Quality** Color (color units) 15\* ND ND - 1No Erosion of natural deposits 3, Odor (threshold odor number) ND ND No Erosion of Natural Deposits Turbidity (NTU) 5 0.03 ND - 0.19Erosion of natural deposits No

Four locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; sixteen locations are tested monthly for color, odor and turbidity.

MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; NTU = nephelometric turbidity units; ND = not detected

\*\*Constituent is regulated by a secondary standard to maintain aesthetic qualities (tsace, odor, color).

| Bacterial Quality       | MCL | MCLG | Highest Monthly<br>Positive Samples | MCL<br>Violation? | Typical Source of Constituent        |
|-------------------------|-----|------|-------------------------------------|-------------------|--------------------------------------|
| Total Coliform Bacteria | 5%  | 0    | 0.0%                                | No                | Naturally present in the environment |

No more than 5% of the monthly samples may be positive for total coliform bacteria.

The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute MCL violation

| Lead and Copper Action Levels at Residential Taps |                      |                |                                      |   |                  |                                 |  |  |
|---|----------------------|----------------|--------------------------------------|---|------------------|---------------------------------|--|--|
|   | Action Level<br>(AL) | Health<br>Goal | 90 <sup>th</sup> Percentile<br>Value | Sites Exceeding AL /<br>Number of Sites | AL<br>Violation? | Typical Source of Constituent   |  |  |
| Lead (ppb)  | 15                   | 0.2            | ND                                   | 0/32                                    | No               | Corrosion of household plumbing |  |  |
| Copper (ppm)                                      | 1 3                  | 0.3            | 0.12                                 | 0/32                                    | No               | Corrosion of household plumbing |  |  |

Every three years, at least 32 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2012. Lead was detected in 0 homes; 0 exceeded the regulatory action level. Copper was detected in 10 samples, 0 exceeded the action level. A regulatory action level is the concentration of a contaminant, if exceeded, triggers treatment or other requirements that a water system must follow.

| Unregulated Contaminant Requiring Monitoring |  |   |   |  |  |  |  |  |
|--|--|---|---|--|--|--|--|--|
| Notification<br>Level                        | Average<br>Amount  | Range of<br>Detections  | Most Recent<br>Sampling Date  |  |  |  |  |  |
| 800  | 195  | 150 – 260   | 2013  |  |  |  |  |  |
| n/a  | 0.03   | ND - 0.04   | 2013  |  |  |  |  |  |
| n/a  | 0.11   | ND - 0.43   | 2013  |  |  |  |  |  |
| n/a  | 4.8  | 4.2 - 5.2   | 2013  |  |  |  |  |  |
| n/a  | 968  | 930 – 1,000   | 2013  |  |  |  |  |  |
| 50   | 2.8  | 2.4 – 3.6   | 2013  |  |  |  |  |  |
|  | Notification<br>Level<br>800<br>n/a<br>n/a<br>n/a<br>n/a | Notification<br>Level         Average<br>Amount           800         195           n/a         0.03           n/a         0.11           n/a         4.8           n/a         968 | Level         Amount         Detections           800         195         150 – 260           n/a         0.03         ND – 0.04           n/a         0.11         ND – 0.43           n/a         4.8         4.2 – 5.2           n/a         968         930 – 1,000 |  |  |  |  |  |

## About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components

associated with service lines and home plumbing. TCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for

water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water

# Source Water Assessments Imported (MWDSC) Water Assessment

Hotline or at: www.epa.gov/safewater/lead.

Every five years, MWDSC is required by CDPH to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters.

In 2012, MWDSC submitted to CDPH its updated Watershed Sanitary Surveys for the Colorado River and State Water Project, which include suggestions for how to better protect these source waters. Both source waters are exposed to stormwater runoff, recreational activities, wastewater discharges, wildlife, fires, and other watershed-related factors that could affect water quality.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

USEPA also requires MWDSC to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of either Watershed Sanitary Survey or the SWA can be obtained by calling MWDSC at (213) 217-6850.

#### Groundwater Assessment

An assessment of the drinking water sources for TCWD was completed in 2011. The water sources are considered most vulnerable to contaminants associated with historic gas stations, septic systems, agricultural/irrigation wells, above and below ground storage tanks and mining activities. There have been no contaminants detected in TCWD'S water associated with these activities. The only detections of contaminants are associated with naturally occuring salts, naturally occuring radiochemicals, and low level organics. A copy of the complete assessment is available at TCWD. You may request that a summary of the assessment be sent to you by contacting Hector Ruiz at (949) 858-0277.



### It's official: California is in a drought.

2013 was the driest year on record, and as dry conditions continue, some regions throughout the state are being severely impacted.

On January 17, 2014, Governor Brown declared a drought emergency and asked that all Californians voluntarily reduce their water use by 20%. While there is no immediate danger of water supply interruptions here in Orange County, we must use our water supplies as efficiently as possible because we don't know how lond the drought will last.

Southern California is well-prepared and in better shape than many of those in other parts of the state because we made investments for dry periods like this. Over the past 20 years, we have invested more than \$15 billion in water storage and infrastructure improvements that will help sustain us now, and will help ensure reliability in the future. The drought is a serious reminder that we must continue to invest in water infrastructure and reliability projects.

This report contains important information about your drinking water.

Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alquien que lo entienda bien.



## Trabuco Canyon Water District

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